



S&T, Web and Information Society Indicators: Building a new scenario

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Advantages

- Websites can reflect the output of academic and research activities better than traditional paper publications
 - The future of informal scholarly communication
 - Web size exceeds 15,000 million pages
 - Rich and media files and raw data
- The audience of the Web is far larger than that of other means of scientific communication
 - Millions instead of hundreds
 - Access is universal and cheap
 - "Open access" initiatives
- Hypertext nature of the Web allows the discovery of new patterns
 - Cyber-science-techno-economy-metrics

Not only papers

- Contents of the R&D and academic Websites
 - Institutional information
 - Courses material
 - Info about academic activities
 - Electronic journals
 - Document repositories
 - Informal and draft
 - R&D results databases
 - Raw data
 - Media and software
 - Vitae and other personal info
 - Cultural, social and economic relationships

Cybermetric Indicators

Category	Indicator / TOP / INFO	Aggregation Level
INFRASTRUCTURE	Physical: Number of servers	International, country, domain, subdomain, institutional domain
	Demography: Number of domains	
	Logon: Number of sites	
	Logon: Number of institutional sites	
S&T	Number of pages	
	No. of objects	
	No. of articles	
	No. of abstracts	
	No. of preprints	
	No. of e-journals	
	No. of e-books	
	No. of e-reports	
	No. of e-theses	
	No. of e-letters	
QUALITY	Internal access: No. of gateways	
	External access: No. of gateways	
	External access: No. of gateways	
	External access: No. of gateways	
	External access: No. of gateways	
	External access: No. of gateways	
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	External access: No. of gateways	
	External access: No. of gateways	
	External access: No. of gateways	
CONNECTIVITY	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
	Connectivity: Total number of links	
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	Connectivity: Total number of links	
VISIBILITY	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
	Visibility: Total number of links	
IMPACT	Impact: Total number of links	
	Impact: Total number of links	
	Impact: Total number of links	
	Impact: Total number of links	
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	Impact: Total number of links	
	Impact: Total number of links	
	Impact: Total number of links	
	Impact: Total number of links	
	Impact: Total number of links	
DIVERSITY	Diversity: Total number of links	
	Diversity: Total number of links	
	Diversity: Total number of links	
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Units

COUNTRY	DOMAINS
FRANCE	fr 477
GERMANY	de 360
UNITED KINGDOM	uk 215
DENMARK	dk 165
POLAND	pl 160
SPAIN	es 159
ITALY	it 112
PORTUGAL	pt 108
NETHERLAND	nl 102
BELGIUM	be 78
GREECE	gr 57
SWEDEN	se 53
CECH REP.	cz 52
AUSTRIA	at 50
FINLAND	fi 50
HUNGARY	hu 48
IRELAND	ie 43
LITHUANIA	lt 37
ESTONIA	ee 36
LATVIA	lv 30
SLOVAKIA	sk 25
LUXEMBOURG	lu 13
CYPRUS	cy 6
SLOVENIA	si 6
MALTA	mt 1

- EU Universities
- Institutional webdomains
- 25 countries
- 2443 domains

Results (I)

INSTITUTION	DOMAIN	WEB RANK	SCIENTOMETRIC RANK
UNIVERSITY OF CAMBRIDGE	cam.ac.uk	1	1
UNIVERSITY OF OXFORD	ox.ac.uk	2	2
UNIVERSITY OF LONDON	ucl.ac.uk	3	3
UNIVERSITY COLLEGE LONDON	ucl.ac.uk	4	4
UNIVERSITY OF LIVERPOOL	liverpool.ac.uk	5	5
UNIVERSITY OF MANCHESTER	man.ac.uk	6	6
UNIVERSITY OF HELSINKI	helsinki.fi	7	7
UNIVERSITY OF VIENNA	univie.ac.at	8	8
UNIVERSITY OF BERLIN	berlin.de	9	9
UNIVERSITY OF GOTTINGEN	gwdg.de	10	10
UNIVERSITY OF DORTMUND	uni-dortmund.de	11	11
UNIVERSITY OF SOUTHAMPTON	southampton.ac.uk	12	12
UNIVERSITY OF LEEDS	leeds.ac.uk	13	13
UNIVERSITY OF SHEFFIELD	sheffield.ac.uk	14	14
UNIVERSITY OF GLASGOW	glasgow.ac.uk	15	15
UNIVERSITY OF ABERDEEN	abdn.ac.uk	16	16
UNIVERSITY OF STIRLING	stirling.ac.uk	17	17
UNIVERSITY OF DUNDEE	dundee.ac.uk	18	18
UNIVERSITY OF ABERDURRAY	aberdeen.ac.uk	19	19
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	20	20
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	21	21
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	22	22
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	23	23
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	24	24
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	25	25
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	26	26
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	27	27
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	28	28
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	29	29
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	30	30

Results (II)

INSTITUTION	DOMAIN	WEB RANK	SCIENTOMETRIC RANK
UNIVERSITY OF CAMBRIDGE	cam.ac.uk	1	1
UNIVERSITY OF OXFORD	ox.ac.uk	2	2
UNIVERSITY OF LONDON	ucl.ac.uk	3	3
UNIVERSITY COLLEGE LONDON	ucl.ac.uk	4	4
UNIVERSITY OF LIVERPOOL	liverpool.ac.uk	5	5
UNIVERSITY OF MANCHESTER	man.ac.uk	6	6
UNIVERSITY OF HELSINKI	helsinki.fi	7	7
UNIVERSITY OF VIENNA	univie.ac.at	8	8
UNIVERSITY OF BERLIN	berlin.de	9	9
UNIVERSITY OF GOTTINGEN	gwdg.de	10	10
UNIVERSITY OF DORTMUND	uni-dortmund.de	11	11
UNIVERSITY OF SOUTHAMPTON	southampton.ac.uk	12	12
UNIVERSITY OF LEEDS	leeds.ac.uk	13	13
UNIVERSITY OF SHEFFIELD	sheffield.ac.uk	14	14
UNIVERSITY OF GLASGOW	glasgow.ac.uk	15	15
UNIVERSITY OF ABERDEEN	abdn.ac.uk	16	16
UNIVERSITY OF STIRLING	stirling.ac.uk	17	17
UNIVERSITY OF DUNDEE	dundee.ac.uk	18	18
UNIVERSITY OF ABERDURRAY	aberdeen.ac.uk	19	19
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	20	20
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	21	21
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	22	22
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	23	23
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	24	24
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	25	25
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	26	26
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	27	27
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	28	28
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	29	29
UNIVERSITY OF ABERDEEN	aberdeen.ac.uk	30	30

Results by country (I)

COUNTRY	DOMAINS	WEB RANK	SCIENTOMETRIC RANK
FRANCE	fr	1	1
GERMANY	de	2	2
UNITED KINGDOM	uk	3	3
DENMARK	dk	4	4
POLAND	pl	5	5
SPAIN	es	6	6
ITALY	it	7	7
PORTUGAL	pt	8	8
NETHERLAND	nl	9	9
BELGIUM	be	10	10
GREECE	gr	11	11
SWEDEN	se	12	12
CECH REP.	cz	13	13
AUSTRIA	at	14	14
FINLAND	fi	15	15
HUNGARY	hu	16	16
IRELAND	ie	17	17
LITHUANIA	lt	18	18
ESTONIA	ee	19	19
LATVIA	lv	20	20
SLOVAKIA	sk	21	21
LUXEMBOURG	lu	22	22
CYPRUS	cy	23	23
SLOVENIA	si	24	24
MALTA	mt	25	25

Results by country (II)

COUNTRY	DOMAINS	WEB RANK	SCIENTOMETRIC RANK
FRANCE	fr	1	1
GERMANY	de	2	2
UNITED KINGDOM	uk	3	3
DENMARK	dk	4	4
POLAND	pl	5	5
SPAIN	es	6	6
ITALY	it	7	7
PORTUGAL	pt	8	8
NETHERLAND	nl	9	9
BELGIUM	be	10	10
GREECE	gr	11	11
SWEDEN	se	12	12
CECH REP.	cz	13	13
AUSTRIA	at	14	14
FINLAND	fi	15	15
HUNGARY	hu	16	16
IRELAND	ie	17	17
LITHUANIA	lt	18	18
ESTONIA	ee	19	19
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Conclusions

- Academic and Web ranks are very similar for Top 100 Universities
- Technical Universities are better represented by Web ranking
- Largest countries with higher number of universities have more domains in top web list
 - Institutional information
- UK and German web domains are leaders in both academic and web lists
- French universities underperformed in the Web
 - Web names changing and confusing
- Language could be a key factor for explaining the good role of Dutch, Swedish and Belgian (websites in English) universities and the not-so-good ranking of Polish and Spanish (local languages) ones
 - Exception is Italy